SYSTEM AND METHOD FOR MINIMIZING IMAGE DEGRADATION IN LCD MICRODISPLAYS

ABSTRACT OF THE DISCLOSURE

A system and method for writing a video frame row by row in a liquid crystal display (LCD) having a matrix of liquid crystal pixels arranged in a plurality of columns and a plurality of rows is provided. The system and method are constructed and arranged to minimize image degradation in the LCD by charging the column capacitors to a mid gray voltage or some other common fixed voltage prior to writing each row. The fixed charge voltage may be achieved by coupling all of the column capacitors together and allowing them to equalize to an average voltage before each row is written. In a preferred embodiment, a successive column or group of columns is charged to the mid gray voltage while the preceding column is being charged to the desired video voltage and that sequence is repeated until each pixel in each row is written.